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ABSTRACT

A study was conducted to investigate the relationship between teaching style and within-term changes in the motivation of two-year college students. "The Echelle de Motivation en Education" (Academic Motivation Scale was administered to 1,597 female and 837 male students at a junior college in Quebec at the beginning of the term and again 3 months later. Teaching style was measured using the Teaching Style Inventory, which identified dominant, auxiliary, back-up, and least-used styles of teaching behaviors to create a teaching profile. Five teaching styles were identified: outcomes oriented; empathic and people oriented; intellectually oriented; innovatively oriented; and mixed teaching style. Findings revealed that highly structured, well-organized, and outcomes-oriented junior college teachers seemed to maintain student motivation, whereas autonomy-supportive and people-oriented teachers were likely to decrease student motivation. The change in student motivation observed in the groups where the teachers had a mixed teaching style supported the idea that versatility in teaching is essential. (Contains 82 references.) (KP)

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The Relationship Between Teaching Style and Within-Term Changes in Junior College Student Motivation.

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JC 940 4189

THE RELATIONSHIP BETWEEN TEACHING STYLE AND WITHIN-TERM CHANGES IN JUNIOR-COLLEGE STUDENT MOTIVATION

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CANADA

OBJECTIVES

The province of Quebec has one of the highest school dropout rates in the world (for an industrialized country): almost 40% of students drop out before completing high school. It is the opinion of many researchers that only *elite students* enter junior college because of this problem. However, more than 75% of students entering a two-year program in a junior college in the Quebec educational system do not complete their degree within those two years. According to Vallerand and Senecal (1992), this problem is largely due to a lack of motivation. Bowen and Madsen (1982), among others, argue that the style in which a teacher uses various strategies and materials may have tremendous impact on a student's motivation.

Internal mental processes (such as understandings, beliefs, and values) are major determinants of behaviour and of the environments that people create. In terms of teaching, this means that the most significant educational variation exists at the level of the individual practitioner -not at the level of instructional materials, packaged programs, or the like.

Thus, it seems reasonable to assume that teaching style may have an important role to play in student motivation. In essence, the purpose of this study is to investigate the relationship between teaching style and within-term changes in junior-college student motivation.

The originality of the present study lies in that it focuses on student motivation change and how teachers influence that change.

THEORETICAL FRAMEWORK

The concept of motivation has been studied from several perspectives (Freud, 1923; Hull, 1943; Skinner, 1953). One perspective which has proven useful over the past 20 years suggests that behaviour can be seen as intrinsically or extrinsically motivated (de Charms, 1968).

In general, intrinsic motivation (IM) refers to the fact of doing an activity for itself, and the pleasure and satisfaction derived from participation (Deci, 1975). Contrary to IM, extrinsic motivation (EM) pertains to a wide variety of behaviours where the goals of action extend beyond those inherent in the activity itself. They are behaviours which are engaged in as means to an end and not for their own sake (Deci, 1975). Originally, it was thought that EM referred to behaviours performed in the absence of self-determination and thus could only be prompted by external contingencies. However, Deci, Ryan and their colleagues (1985, 1991) have postulated a self-determination theory. According to this theory, various types of EM exist, some of which are self-determined and may be performed through self-regulation. According to these researchers, there are four types of EM which can be ordered along a self-determination continuum. From lower to higher levels of self-determination, they are: *external* ,*introjected* ,*identified* and *integrated regulation*.

External regulation corresponds to EM as it generally appears in the literature. That is, behaviour is regulated through external means such as rewards and constraints. With *introjected regulation*, the individual begins to internalize the reasons for his actions. However, this form of internalization, while internal to the person, is not truly self-determined since it is limited to the internalization of past external contingencies (Vallerand, Blais, Brière et Pelletier, 1989). To the extent that the behaviour becomes valued by the individual, and especially that it is perceived as chosen by the individual himself, then the internalization of extrinsic motives becomes regulated through *identified regulation*. The most self determined form of EM is referred to as *integrated regulation*. According to Deci and Ryan (1991), *integrated regulation* occurs when the individual's action is perceived as personally valued and freely done. Thus, *integrated* action is authentic.

An increasing amount of research has been undertaken to evaluate Deci and Ryan's EM formulation. The results consistently support the basic premises of the formulation. For instance, results from confirmatory factor analyses on the motivation scales have supported the presence of three types of EM in education (Ryan & Connell, 1989; Vallerand & al., 1989; Karsenti, 1993).

In addition to intrinsic and extrinsic motivation, Deci and Ryan (1985, 1991) have posited that a third type of motivational construct is important to consider in order to fully understand human behaviour. This concept is termed amotivation (AM). Individuals are amotivated when they do not perceive a link between outcomes and their own actions. They are neither intrinsically nor extrinsically motivated. They are non-motivated. Amotivation can be seen in many ways as similar to learned helplessness (Abramson, Seligman & Teasdale, 1978) since individuals will experience feelings of incompetence, and expectancies of uncontrollability. When students are in such a state, they perceive their behaviours as caused by forces out of their own control. Eventually, they may stop the behaviour (Vallerand & al. 1989).

Finally, it should be noted that Deci and Ryan (1985, 1991) have posited that the various types of motivation can be aligned on a continuum according to the level of self-determination. The types of motivation are: amotivation, extrinsic motivation (*external, introjected, identified* and *integrated regulation*) and intrinsic motivation (Figure 1).

METHOD

Subjects

Subjects were 2434 students (1597 female and 837 male) from a junior college of the Montreal area (Quebec, Canada). Subjects had a mean age of 19 years. A total of 99 classes (35 different teachers) took part in the study.

Measures (Questionnaire)

In Canada, a new measure of motivation toward education, the "*Echelle de Motivation en Education*" (*EME*)[1], has been developed by Vallerand and his colleagues (1989). The *EME* is

[1] Known in English as the *Academic Motivation Scale* (AMS).

based on the tenets of self-determination theory and is composed of five subscales assessing intrinsic motivation, three types of extrinsic motivation (*external, introjected,* and *identified regulation*)[2] , and amotivation. Extensive data supports the reliability and validity of the *EME*. Initial data provided support for the reliability (internal consistency and temporal stability), factorial validity and construct validity. There are 28 items in the *EME*. The rating is on a 1-7 scale with 7 representing maximum appropriateness. The *EME* assesses students' motivational styles toward academic activities. Similar to Ryan and Connell's *Self-Regulation Questionnaire* (1989), the *EME* assesses intrinsic motivation and external regulation, introjection and identification toward two main academic activities, "*going to school*" and "*doing homework*". In addition, the *EME* also assesses amotivation in the two types of academic activities. Thus, the *EME* assesses most of the concepts proposed in Deci and Ryan's theory. It should also be noted that the *EME* was developed for college students, while the Ryan and Connell scale is designed for elementary-school children.

Teaching style

Teaching style was measured through a validated questionnaire, the *Teaching Style Inventory* (*TSI*), developed by Silver, Hanson & Strong (1980). The *TSI* is a self descriptive assessment of one's instructional decision-making. Based on the studies of Carl Gustav Jung, the *TSI* identifies a profile of teaching behaviours. According to Silver, Hanson and Strong (1980), no one teaching style adequately represents the totality on one's teaching behaviour. We all operate in a variety of ways in different situations. In reality, we use a combination of styles at any one time. Therefore, it is important to identify not just a single style, but one's teaching profile. The *Teaching Profile Inventory* includes the "*dominant style*", the style most preferred and most often used (highest score); the "*auxiliary style*", the second style most likely to be used (the second highest score); the "*back-up style*", (third highest score); and the "*least used style*", (the lowest score).

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[2] Other studies showed that EM integrated is difficult to assess, therefore it was not included in the *Academic Motivation Scale*.

The four teaching styles:

- *outcomes-oriented*;
- *empathic and people-oriented*;
- *intellectually oriented*;
- *innovatively oriented.*

Procedures

In the first week of the fall term, 2434 students were asked to complete the questionnaire described above (with some personal data: name, age, gender, academic program, number of hours spent on a part-time job, and place of residence). Almost three months later, students were once again asked to complete the *EME*. The measure of the teaching style (*TSI*) was administered to teachers a few days prior the students' first assessment. A standard explanation was given in the staff rooms of the six departments involved.

RESULTS

Motivation scores for each subscale (intrinsic motivation, three types of extrinsic motivation and amotivation) were analyzed by means of separate analyses of variance.

Teaching style and student motivation

Teaching style was measured with the main orientation of teachers towards one of the four styles. However, many teachers were not oriented toward one particular style, but rather equally oriented toward two teaching styles, these being "*outcomes-oriented*" and "*intellectually-oriented*" teaching styles. Therefore, for the purpose of this study, a fifth teaching style, "*mixed teaching style*", was added.

Pre-test mean scores (ONEWAY) show that teaching style has no effect on student motivation (Table 1). In three months, though the motivation of all students dropped significantly, only teachers oriented towards two teaching styles, "*outcomes-oriented*" and "*mixed teaching style*", maintained intrinsic motivation, *identified regulation*, and amotivation (Table 2 and

amotivation (Table 2 and Figure 2). All other teaching styles significantly decreased intrinsic motivation, *identified regulation*, and increased amotivation.

DISCUSSION

Our findings revealed that highly structured, well-organized, and outcomes-oriented junior-college teachers seem to maintain student motivation, whereas autonomy-supportive and people-oriented teachers are likely to decrease student motivation. These findings are intriguing because they run contrary to past research which has found people-oriented teachers to be more effective. However, most of those studies dealt with elementary-school children. Most elementary-school children want their teacher to behave as a friend or a parent substitute. It seems possible that at age 19, students do not go to school to "feel good", but rather to learn. They need someone who will make learning meaningful. Thus, junior-college students seem to like highly experienced teachers (Ploghoft & Moden, 1989) and structured, more authoritative teachers (Metz, 1978).

The change in student motivation observed in the groups where the teachers had a "*mixed teaching style*" supported the idea that versatility in teaching is essential. It is likely that teachers will have to alternate between structure and freedom, providing an overall structure but allowing enough individual choice for the more autonomous students. No extreme style of teaching can be expected to be suitable for the majority of students.

The findings of this study could help junior-college teachers to improve their practice, and therefore, in the long run, could prevent school dropout. Essentially, this research shows that teaching style is a major determinant of junior-college student motivation.

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Table 1 Comparison of students' initial (pre-test) levels of motivation (for the five subscales) with regards to *mixed teaching style*

Variables	Level of significance (pre-test)									
	AM		**EM** *External reg.*		**EM** *Introjection*		**EM** *Identification*		**IM**	
	F	***P***	***F***	***P***	***F***	***P***	***F***	***P***	***F***	***P***
Teaching style	1.01	N.S.	0.82	N.S.	1.43	N.S.	0.68	N.S.	0.52	N.S.

Table 2 Influence of teaching style on the change of motivation

Variables	Level of significance									
	AM		**EM** *External reg.*		**EM** *Introjection*		**EM** *Identification*		**IM**	
	F	***P***	***F***	***P***	***F***	***P***	***F***	***P***	***F***	***P***
Teaching style	3.84	<0,001	-	N.S.	-	N.S.	4.61	<0,005	6.44	<0,0001
INTERACTIONS										

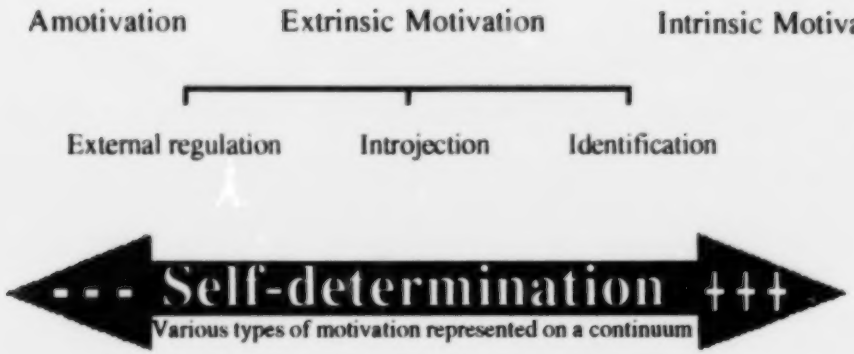

Figure 1
Representation of Deci & Ryan's self-determination theory (1985, 1991).

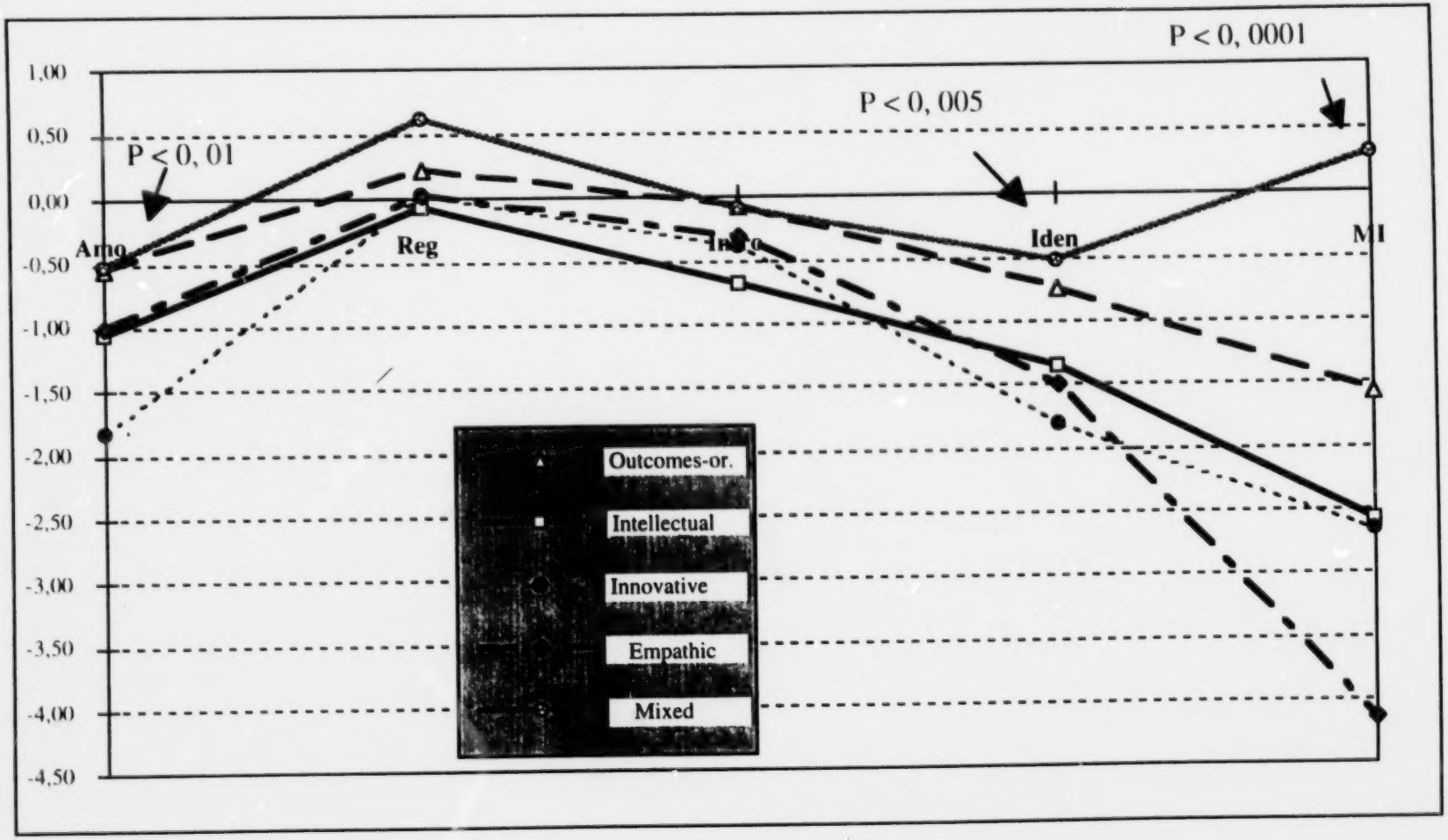

Figure 2

The effect of teaching style on within-term changes in student motivation.

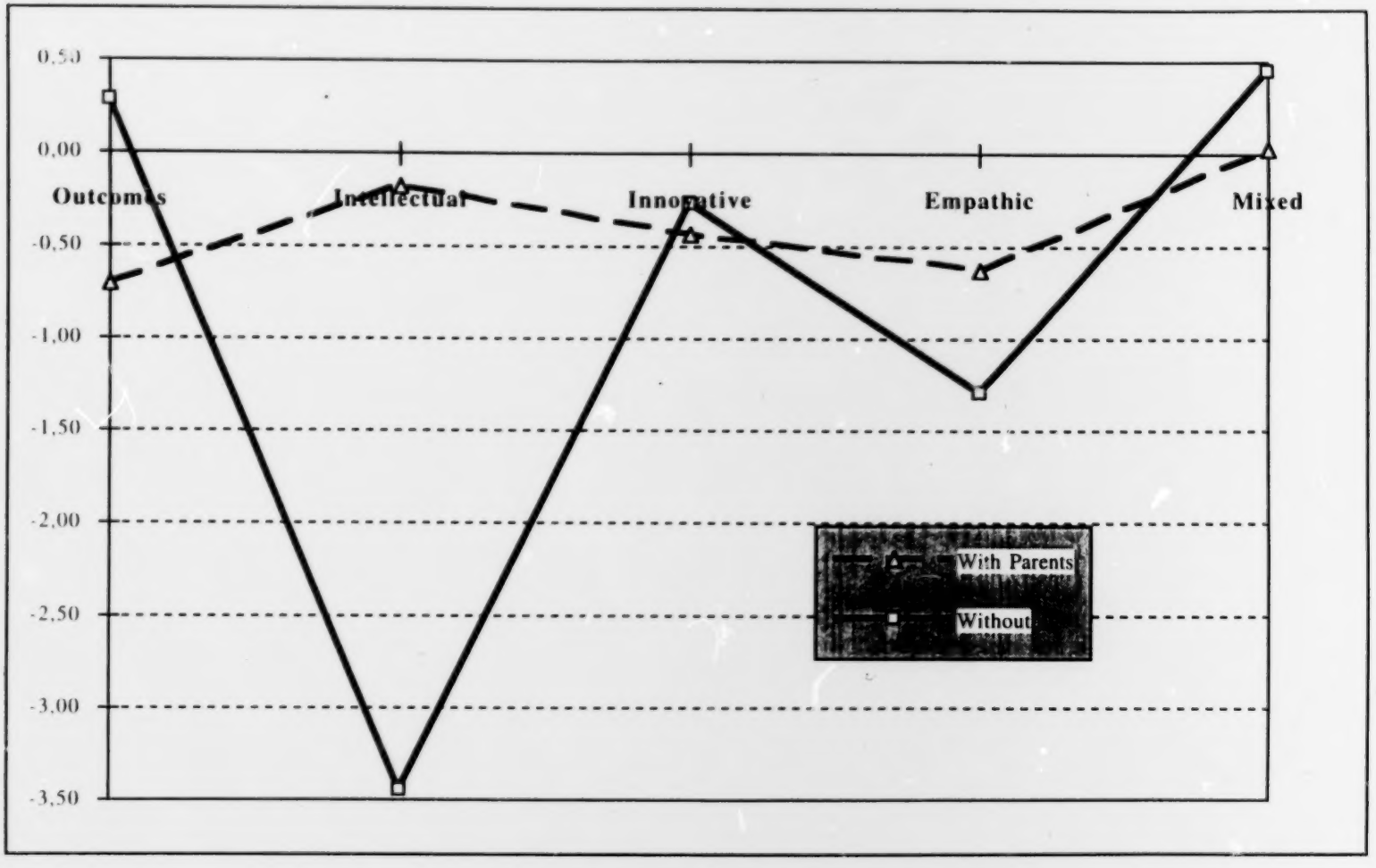

Figure 3

The effect of the interaction between *teaching style* and the *place of residence (with or without parents)* on the change in *introjected* EM.

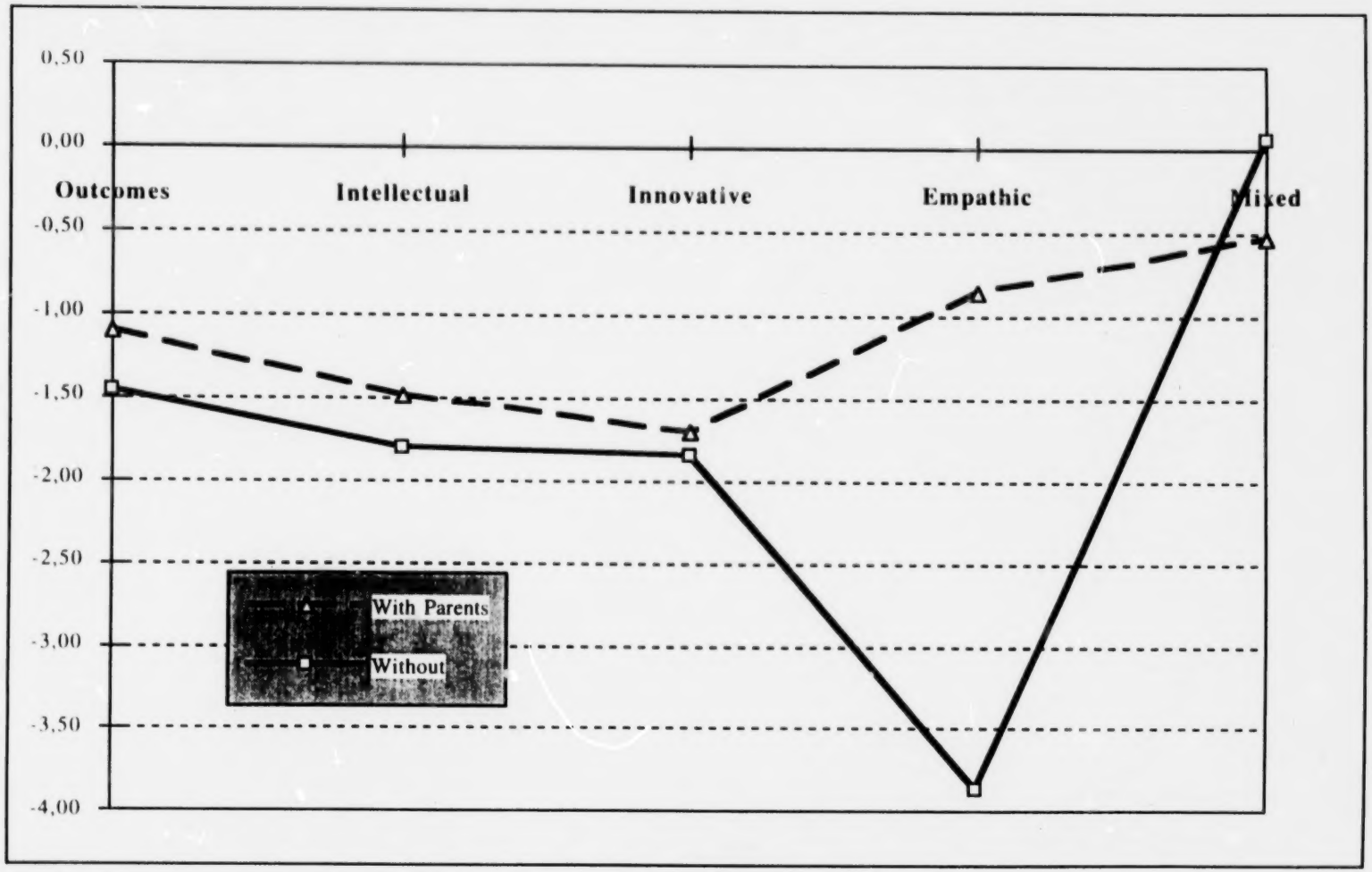

Figure 4

The effect of the interaction between *teaching style* and the *place of residence (with or without parents)* on the change in *identified* EM.